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April 24.

SIR WILLIAM BETHAM, in the Chair.

The Chairman informed the Academy, that Sir Richard O'Donnell had consented to deposit the *Cathach*, containing a MS. of the Psalms in Latin, by St. Colombkill, in the Museum of the Royal Irish Academy.

RESOLVED,—That the marked thanks of the Academy be returned to Sir Richard O'Donnell for his kindness.

Read, a letter from the Rev. T. R. Robinson, accompanying a box containing an original Pyrometer of Wedgewood, presented to the Academy by Miss Edgeworth, (H. M. R. I. A.)

“DEAR MAC CULLAGH,

“Our friend, Miss Edgeworth, has requested me to present from her to the Academy a Wedgewood's Pyrometer, which, as unfortunately I cannot attend this evening, I commit to your care. This instrument is remarkable, as being the first attempt to place within reach of the manufacturer and the chemist an easy method of measuring, at least approximatively, the temperature of their furnaces. It consists, as is well known, of a pair of converging bars, which measure, by a graduation on them, the contraction of clay cylinders that have been heated; this remains permanent, and were it, as Mr. Wedgewood supposed, a function of temperature alone, would suffice for all practical purposes. Many circumstances, however, have interfered with its general employment. The set of clay pieces which were used in the first instance were made of natural clay found in Cornwall. By these the numbers given in treatises of chemistry for the fusing points of the more refractory metals were determined, and I think it probable that Mr. Kirwan used them in his researches; Sir James Hall, I think, did not. Mr.

Wedgewood had stated in his memoir that the supply of the clay was inexhaustible; but when the stock first made was disposed of, he was unable to find the identical spot where it had been obtained, and the contraction of the new specimen was different. Had he used it as he did the other, and merely directed the employment of a number by which to multiply the indications of the scale, no inconvenience would have resulted; but he thought he might bring it to an identity by adding 'earth of alum,' obtained by precipitating alum by carbonate of potassa; a product which Apjohn or Kane will tell you is very far indeed from being pure alumina. This unhappily made the contraction irregular, and the clay pieces much less capable of resisting a high heat. Its indications were found to differ from those of the first set, and it fell into disuse, especially for two reasons. The first that Wedgewood had assigned to his degrees, a value enormously too large, so that he supposed the extreme heat of a furnace to be about 30000 of Fahrenheit, when it is only 4000. Many years since, in our Transactions, I had pointed out this error, and corrected it, with tolerable success, as was long afterwards confirmed by Daniell and Prinsep. The second, that a long exposure to a low heat produces the same contraction as a short exposure to a high. This is said by Sir James Hall to have been established by Dr. Kennedy, whose experiments, however, are no where published; and I confess that I doubt the fact. Guyton De Morveau has even made an observation which may account for the mistake. He found that similar pieces exposed for half an hour in a powerful furnace, one surrounded by siliceous sand, the other by powdered charcoal, marked 90 and 60, in consequence of the different conducting powers of these media. Now it is possible that the Scotch philosopher may have overlooked this influence, and not allowed time enough for the higher temperature to be fully transmitted. The pyrometers of Daniell and others which have since been con-

trived, are so much more cumbrous and elaborate than this, that I hope it may yet be revived; and if so, the chemists, who may construct pieces for themselves, would find it useful to compare them with Wedgewood's old standard. A single cylinder is sufficient for this, as after measuring a comparatively low temperature, it will still contract when submitted to a higher. This I know to have been one of the original and genuine set presented to the late Mr. Edgeworth by its inventor, and therefore, independent of its probable utility, precious as a relic of two such men, and still more so as the gift of our illustrious countrywoman to a body, of whose scientific triumphs she is proud, and in whose welfare I know her to be deeply interested.

“T. R. ROBINSON.

“*April 24, 1843.*”

RESOLVED,—That the letter be referred to Council, for special notice and attention.

H. Smith, Esq. exhibited an ancient dress, found in a bog at a considerable depth, near the Abbey of Kilkenny.

A number of interesting antiquities, found at Ballyrowan, in the Queen's County, by Mr. Harrison, were presented by the Rev. B. I. Clarke, to the Academy.

The thanks of the Academy were presented to Mr. Clarke for his donation.

Sir Wm. Betham made a communication on the antiquity of certain languages.

DONATIONS.

Astronomical Observations made with Ramsden's Zenith Sector, and Catalogue of the Stars which have been observed at the different stations of the Ordnance Survey in England